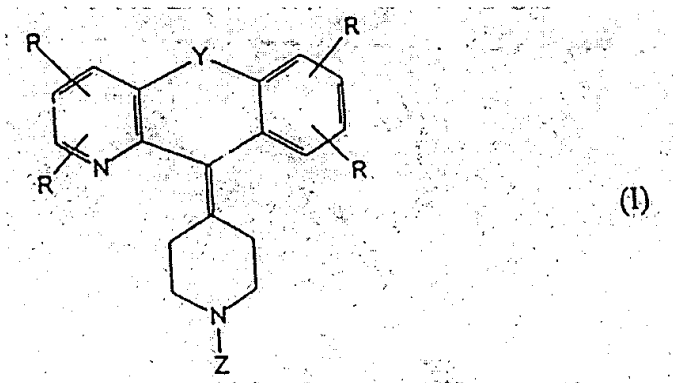


IN THE CLAIMS

Please amend the following claims

1. (Amended) A process for creating 1,4-disubstituted piperidine compounds of formula (1)



in which

R [independently of one another mean] is a member selected from the group consisting of

hydrogen, fluorine, chlorine, bromine,

straight-chain (C₁-C₅), straight chain (C₁-C₅) substituted with fluorine,

straight chain (C₁-C₅) substituted with chlorine, straight chain (C₁-C₅) substituted with bromine, straight chain (C₁-C₅) substituted with a (C₁-C₅) – alkyl-ether group,

straight chain (C₁-C₅) substituted with phenyl, [or]

branched (C₁-C₅) – alkyl, branched (C₁-C₅)-alkyl substituted with fluorine,

branched (C₁-C₅) – alkyl substituted with chlorine, branched (C₁-C₅) – alkyl

substituted with bromine, [which in a given case is substituted with fluorine, chlorine, or bromine,] branched (C₁-C₅) – alkyl substituted with a (C₁-C₅) – alkyl-ether group [and/or with], branched (C₁-C₅) – alkyl substituted with phenyl[:] ,

straight-chain (C₂-C₅) – alkenyl, straight-chain (C₂-C₅) – alkenyl substituted with fluorine, straight-chain (C₂-C₅) – alkenyl substituted with chlorine, straight-chain (C₂-C₅) – alkenyl substituted with bromine, straight-chain (C₂-C₅) – alkenyl substituted with a (C₁-C₅) – alkyl ether group, straight-chain (C₂-C₅) – alkenyl substituted with phenyl, [or]

branched (C₂-C₅) – alkenyl, branched (C₂-C₅) – alkenyl substituted with fluorine, branched (C₂-C₅) – alkenyl substituted with chlorine, branched (C₂-C₅) – alkenyl substituted with bromine, [which in a given case is substituted with fluorine, chlorine, or bromine,] branched (C₂-C₅) – alkenyl substituted with a (C₁-C₅) – alkyl ether group [and/or] branched (C₂-C₅) – alkenyl substituted with phenyl,

phenyl, [which in a given case is substituted with] phenyl substituted with fluorine, phenyl substituted with chlorine, phenyl substituted with bromine, phenyl substituted with (C₁-C₅) – alkyl, phenyl substituted with -COOH, phenyl substituted with (C₁-C₅) – alkyl ester, phenyl substituted with -NH₂, phenyl substituted with a mono-(C₁-C₅) – alkyl substituted amine [and/or] phenyl substituted with a di-(C₁-C₅) – alkyl substituted amine,

a hetero-aromatic, a hetero-aromatic which contains a nitrogen atom, a hetero-aromatic which contains a sulfur atom, a hetero-aromatic which contains a sulfur atom and a nitrogen atom, a hetero-aromatic which contains two nitrogen

atoms, a hetero-aromatic which contains a sulfur atom and two nitrogen atoms, a hetero-aromatic which contains three nitrogen atoms, a hetero-aromatic which contains a sulfur atom and three nitrogen atoms,

a hetero-aromatic which contains a nitrogen atom and a 5 member ring system, a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with fluorine, a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with chlorine, a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with bromine, a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with (C₁-C₅)-alkyl, a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with -COOH, a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with (C₁-C₅)-alkyl ester, a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with -NH₂, a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with a mono- (C₁-C₅) – alkyl substituted amine, a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with a di-(C₁-C₅) – alkyl substituted amine,

a hetero-aromatic which contains a nitrogen atom and a 6 member ring system, a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with fluorine, a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with chlorine, a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with bromine, a

hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with (C₁-C₅)-alkyl, a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with -COOH, a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with (C₁-C₅)-alkyl ester, a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with -NH₂, a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with a mono- (C₁-C₅) – alkyl substituted amine, a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with a di-(C₁-C₅) – alkyl substituted amine,

[which is bonded directly or via straight-chain or branched (C₁-C₅) – alkylene to the pyridine and/or the phenyl ring, and contains a nitrogen atom and/or a sulfur atom and/or 1,2, or 3 nitrogen atoms and contains a nitrogen atom and/or a sulfur atom and/or 1,2, or 3 nitrogen atoms and contains a nitrogen atoms and a 5- or 6-member ring system which in a given case is substituted with fluorine, chlorine, bromine, (C₁-C₅) – alkyl, -COOH, (C₁-C₅) – alkyl ester, -NH₂, a mono- (C₁-C₅) – alkyl substituted amine and/or a di-(C₁-C₅) – alkyl substituted amine, or]

a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a sulfur atom, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a sulfur atom and a nitrogen atom, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains two nitrogen atoms, a

straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a sulfur atom and two nitrogen atoms, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains three nitrogen atoms, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a sulfur atom and three nitrogen atoms,

a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 5 member ring system, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with fluorine, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with chlorine, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with bromine, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with (C₁-C₅)-alkyl, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with -COOH, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with (C₁-C₅)-alkyl ester, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with -NH₂, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with a mono- (C₁-C₅) – alkyl

substituted amine, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-
aromatic which contains a nitrogen atom and a 5 member ring system substituted
with a di-(C₁-C₅) – alkyl substituted amine.

a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which
contains a nitrogen atom and a 6 member ring system, a straight-chained (C₁-C₅) –
alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 6
member ring system substituted with fluorine, a straight-chained (C₁-C₅) – alkylene
bonded to a hetero-aromatic which contains a nitrogen atom and a 6 member ring
system substituted with chlorine, a straight-chained (C₁-C₅) – alkylene bonded to a
hetero-aromatic which contains a nitrogen atom and a 6 member ring system
substituted with bromine, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-
aromatic which contains a nitrogen atom and a 6 member ring system substituted
with (C₁-C₅)-alkyl, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic
which contains a nitrogen atom and a 6 member ring system substituted with -
COOH, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which
contains a nitrogen atom and a 6 member ring system substituted with (C₁-C₅)-alkyl
ester, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which
contains a nitrogen atom and a 6 member ring system substituted with -NH₂, a
straight-chained (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a
nitrogen atom and a 6 member ring system substituted with a mono- (C₁-C₅) – alkyl
substituted amine, a straight-chained (C₁-C₅) – alkylene bonded to a hetero-

aromatic which contains a nitrogen atom and a 6 member ring system substituted with a di-(C₁-C₅) – alkyl substituted amine,

a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a sulfur atom, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a sulfur atom and a nitrogen atom, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains two nitrogen atoms, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a sulfur atom and two nitrogen atoms, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains three nitrogen atoms, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a sulfur atom and three nitrogen atoms,

a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 5 member ring system, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with fluorine, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with chlorine, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with bromine, a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with (C₁-C₅)-alkyl, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which

contains a nitrogen atom and a 5 member ring system substituted with -COOH, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with (C₁-C₅)-alkyl ester, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with -NH₂, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with a mono- (C₁-C₅) – alkyl substituted amine, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with a di-(C₁-C₅) – alkyl substituted amine,

a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 6 member ring system, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with fluorine, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with chlorine, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with bromine, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with (C₁-C₅)-alkyl, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with -COOH, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with (C₁-C₅)-alkyl ester, a branched (C₁-C₅) – alkylene bonded to a

hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with -NH₂, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with a mono- (C₁-C₅) – alkyl substituted amine, a branched (C₁-C₅) – alkylene bonded to a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with a di-(C₁-C₅) – alkyl substituted amine,

two R substituents bonded to the same ring form an aromatic ring, two R substituents bonded to the same ring form an aromatic ring substituted with fluorine, two R substituents bonded to the same ring form an aromatic ring substituted with chlorine, two R substituents bonded to the same ring form an aromatic ring substituted with bromine, two R substituents bonded to the same ring form an aromatic ring substituted with (C₁-C₅)-alkyl, two R substituents bonded to the same ring form an aromatic ring substituted with -COOH, two R substituents bonded to the same ring form an aromatic ring substituted with (C₁-C₅)-alkyl ester, two R substituents bonded to the same ring form an aromatic ring substituted with -NH₂, two R substituents bonded to the same ring form an aromatic ring substituted with a mono-(C₁-C₅)- alkyl substituted amine, two R substituents bonded to the same ring form an aromatic ring substituted with a di-(C₁-C₅) – alkyl substituted amine, [or]

two R substituents bonded to the same ring form a hetero-aromatic ring,
[which in a given case]two R substituents bonded to the same ring form a hetero-

aromatic ring which is substituted with fluorine, two R substituents bonded to the same ring form a hetero-aromatic ring which is substituted with chlorine, two R substituents bonded to the same ring form a hetero-aromatic ring which is substituted with bromine, two R substituents bonded to the same ring form a hetero-aromatic ring which is substituted with (C₁-C₅) – alkyl, two R substituents bonded to the same ring form a hetero-aromatic ring which is substituted with -COOH, two R substituents bonded to the same ring form a hetero-aromatic ring which is substituted with (C₁-C₅) – alkyl ester, two R substituents bonded to the same ring form a hetero-aromatic ring which is substituted with -NH₂, two R substituents bonded to the same ring form a hetero-aromatic ring which is substituted with a mono-(C₁-C₅)- alkyl substituted amine, and two R substituents bonded to the same ring form a hetero-aromatic ring which is substituted with [and/or] a di-(C₁-C₅) – alkyl substituted amine;

Y is an element selected from the group consisting of [means -(CH₂)_n- , in which n = 0, 1, 2, or 3;] -(CH₂)₀-, -(CH₂)₁-, -(CH₂)₂-, -(CH₂)₃-, oxygen, sulfur; vinyl; CH₂-O; -O-CH₂; -CH₂-, [or] and -S-CH₂;

Z [independently of one another mean] is a member selected from the group consisting of hydrogen, -C(O)R¹; -C(O)OR¹; and -OS(O)R²; wherein R¹ and R² are hereafter defined;[or one of the meanings of R¹;]

R¹ is an element selected from the group consisting of straight-chain (C₁-C₅), straight chain (C₁-C₅) substituted with fluorine, straight chain (C₁-C₅) substituted with chlorine, straight chain (C₁-C₅) substituted with bromine, straight chain (C₁-C₅) substituted with a (C₁-C₅) – alkyl-ether group, straight chain (C₁-C₅) substituted with a phenyl,

branched (C₁-C₅) – alkyl, branched (C₁-C₅)-alkyl substituted with fluorine, branched (C₁-C₅) – alkyl substituted with chlorine, branched (C₁-C₅) – alkyl substituted with bromine, branched (C₁-C₅) – alkyl substituted with a (C₁-C₅) – alkyl-ether group, branched (C₁-C₅) – alkyl substituted with phenyl,

straight-chain (C₂-C₅) – alkenyl, straight-chain (C₂-C₅) – alkenyl substituted with fluorine, straight-chain (C₂-C₅) – alkenyl substituted with chlorine, straight-chain (C₂-C₅) – alkenyl substituted with bromine, straight-chain (C₂-C₅) – alkenyl substituted with a (C₁-C₅) – alkyl ether group, straight-chain (C₂-C₅) – alkenyl substituted with phenyl,

branched (C₂-C₅) – alkenyl, branched (C₂-C₅) – alkenyl substituted with fluorine, branched (C₂-C₅) – alkenyl substituted with chlorine, branched (C₂-C₅) – alkenyl substituted with bromine, branched (C₂-C₅) – alkenyl substituted with a (C₁-C₅) – alkyl ether group branched (C₂-C₅) – alkenyl substituted with phenyl,

phenyl, phenyl substituted with fluorine, phenyl substituted with chlorine, phenyl substituted with bromine, phenyl substituted with (C₁-C₅) – alkyl, phenyl substituted with -COOH, phenyl substituted with (C₁-C₅) – alkyl ester, phenyl

substituted with -NH₂, phenyl substituted with a mono-(C₁-C₅) – alkyl substituted amine phenyl substituted with a di-(C₁-C₅) – alkyl substituted amine,

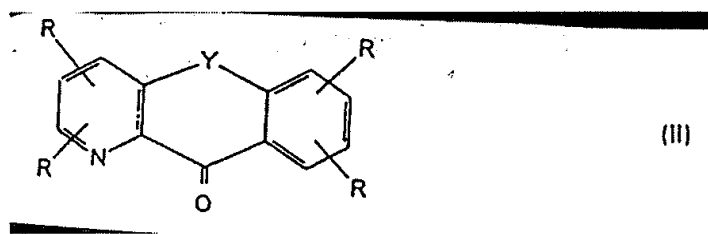
a hetero-aromatic, a hetero-aromatic which contains a nitrogen atom, a hetero-aromatic which contains a sulfur atom, a hetero-aromatic which contains a sulfur atom and a nitrogen atom, a hetero-aromatic which contains two nitrogen atoms, a hetero-aromatic which contains a sulfur atom and two nitrogen atoms, a hetero-aromatic which contains three nitrogen atoms, a hetero-aromatic which contains a sulfur atom and three nitrogen atoms,

a hetero-aromatic which contains a nitrogen atom and a 5 member ring system, a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with fluorine, a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with chlorine, a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with bromine, a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with (C₁-C₅)-alkyl, a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with -COOH, a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with (C₁-C₅)-alkyl ester, a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with -NH₂, a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with a mono- (C₁-C₅) – alkyl substituted amine, a hetero-aromatic which contains a nitrogen atom and a 5 member ring system substituted with a di-(C₁-C₅) – alkyl substituted amine,

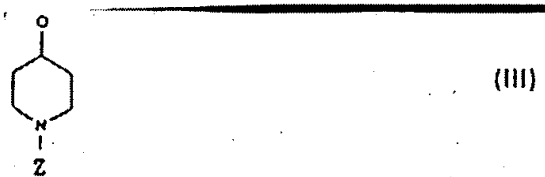
a hetero-aromatic which contains a nitrogen atom and a 6 member ring system, a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with fluorine, a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with chlorine, a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with bromine, a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with (C₁-C₅)-alkyl, a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with -COOH, a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with (C₁-C₅)-alkyl ester, a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with -NH₂, a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with a mono- (C₁-C₅) – alkyl substituted amine, a hetero-aromatic which contains a nitrogen atom and a 6 member ring system substituted with a di-(C₁-C₅) – alkyl substituted amine, [independently of one another mean straight-chain or branched (C₁-C₅)-alkyl, which in a given case is substituted with fluorine, chlorine, or bromine, with a (C₁-C₅)-alkyl ether group, and/or with phenyl; straight-chain or branched (C₂-C₅)- alkenyl, which in a given case is substituted with fluorine, chlorine, or bromine, with a (C₁-C₅)-alkyl ether group, and/or phenyl; phenyl, which in a given case is substituted with fluorine, chlorine, bromine, (C₁-C₅)-alkyl, -COOH, (C₁-C₅)-alkyl ester, -NH₂, a mono -(C₁-C₅)-alkyl substituted amine and/or a di-(C₁-C₅)-alkyl substituted amine; a heteroaromatic, which is bonded or via straight-chain or branched (C₁-C₅)- alkylene

to the pyridine and/or the phenyl ring, and contains a nitrogen atom and/or a sulfur atom and/or 1,2, or 3 nitrogen atoms and contains a nitrogen atom and/or a sulfur atom and/or 1,2, or 3 nitrogen atoms and a 5- or 6-member ring system which in a given case is substituted with fluorine, chlorine, bromine, (C₁-C₅)-alkyl, -COOH, (C₁-C₅)-alkyl ester, -NH₂, a mono-(C₁-C₅)-alkyl substituted amine and/or a di-(C₁-C₅)-alkyl substituted amine, or straight-chain or branched (C₁-C₅)-alkyl, which is substituted by such a hetero-aromatic];

R² [means one of meanings of] wherein R² is selected from the group consisting of R¹, and[or] a bridged saturated isocyclic system [, which preferably is wherein] having a compound of formula (II)



in which the substituents R and Y have the meanings cited above, with a compound of formula (III)



in which Z has the meaning specified above, is brought to react in a single process step by means of reductive dimerization (i) in the presence of finely dispersed metal compound of the IVth and/or Vth and/or VIth subgroup of the periodic table of

elements or a low-valent oxidation stage of such a corresponding metal compound, (ii) the finely dispersed metal or the low-valent oxidation stage being produced in situ by means of a reducing agent, and (iii) in the presence of an inert solvent, the reducing agent being chosen from the group of alkali metals, metals of the IIInd main group or second subgroup of the periodic table, alloys of these metals, inclusion compounds of such metals, or of higher polycyclic aromatics, and the solvent is chosen for the group of the inert ethers or the group of nitrogen-containing unsaturated hetro-aromatics or the tertiary amines.

2. (Amended) The process in accordance with Patent Claim 1, wherein R [independently of one another means] is selected from the group consisting of hydrogen, fluorine, chlorine, bromine, methyl, [or] and trifluoromethyl.

3. (Amended) The process in accordance with Patent Claim 1, wherein R [independently of one another means] is selected from the group consisting of hydrogen, fluorine, [or] and chlorine.

6 (Twice amended) The process in accordance with claim 1, wherein the compound of formula (1) only has a single substituent R, which is different from hydrogen[, this substituent R being fixed in R-position].

7. (Twice Amended) The process in accordance with claim 1, wherein

Y means $-\text{CH}_2\text{-CH}_2$;

R^1 [means] is selected from a group consisting of (C₁-C₅)-alkyl, [preferably]and ethyl;

R^2 [means]is selected from a group consisting of (C₁-C₅)-alkyl, benzyl, vinyl, [or] dimethyl amino, [preferably]and methyl;

Z [means] is selected from the group consisting of $-\text{C}(\text{O})\text{R}^1$, $-\text{C}(\text{O})\text{OR}^1$, [preferably] - $\text{C}(\text{O})\text{OR}^1$, and [preferably] $-\text{C}(\text{O})\text{-C}_2\text{-H}_5$ wherein R^1 is defined herein